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Power without: On the practice of wilderness teaching

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THE POWER WITHOUT:

ON THE PRACTICE OF WILDERNESS TEACHING

By

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THE FAR FIELDS

> To the resident, landscape is the outside of what goes on inside. And if we view the environment as part of us, it is next to know it is alive and has its own power.
>
> - Empty Fox
> in Out by Ronald Selenchick

Just below ten thousand feet in Montana's rugged Beartooth Mountains, a group of six students are keying out alpine wildflowers around the spangled edges of a high-altitude tarn. Their instructor moves slowly through the group providing assistance when called upon. Later that afternoon the group moves up over a gigantic boulder field to gain perspective on the broad outlines of the basin they are camping in, and a close-up view of the remnant glaciers that cut the land into peaks and valleys during the last Ice Age. The glistening snow and glare of the afternoon sun underline the talk on mountain geology that the instructor is giving; the moraines, crevasses, and cirques are right in front of them. As the lecture ends, the sun disappears behind grey clouds and a storm quickly blows in. Returning to camp, pelted by snow and hail, the group passes over the same plants that occupied its attention earlier in the day. Thoughts briefly settle on the dwarf perennials: a toughness rooted in ecological extremes. But sheltering tents are the means of existence for humans at this elevation, and the group moves on quickly.

In a different place and season another group of students sits in the headquarters of Great Smoky Mountains National Park. They

have spent the last five springtime weeks walking in one of the richest habitats in North America studying ecology, environmental ethics, and the history of wilderness preservation. Now they are listening to a Park Service specialist in resource management discuss specific issues facing the Park. The group is attentive and full of questions; they have seen the problems firsthand and have been examining the larger context within which such problems occur. The meeting ends with many suggestions from the students. They come away with valuable insights into how a federal agency operates within managerial and political realities. The group returns to the backcountry for another two weeks with an enhanced view of what it means to manage a large wilderness Park.

Early in a different spring, surrounded by a desert of stark rock and sand, yet another group of fourteen students trudges beneath the hot sun up an old jeep trail. Under packs weighted with two weeks' supply of food, books, reprints, and journals, they have just begun the initial hike of a quarter-long study of southern Utah's canyonlands. The desert is foreign and strange to them; their eyes and legs have yet to develop the easy familiarity that results from a semester of walking in the wilderness. The hike seems endless; a misread map turns into fourteen miles of sheer physical strain. As evening slips away, camp is finally reached. There is water to be collected and supper still to be cooked. On the edge of exhaustion, with darkness moving down the canyon walls, the group finds its West Fork camp to be a moonlit wash of pure white sand spreading untrampled a hundred yards wide. The rock needles speak in silence; once again the desert

begins its season-long journey into human bones.

Since the early 1970's, student groups such as these have been studying natural history, environmental ethics, and wilderness-related issues by backpacking into various wildlands. The programs are administered by the University of California Extension at Santa Cruz.[1] Courses are often an entire study quarter in duration, offering three classes for fifteen units of academic credit. All instruction takes place in a particular wildland during a series of extended hikes. Students come from all over the country to study traditional subjects in a quite untraditional fashion. This manner of study has come to be called wilderness education, and a number of colleges and universities are experimenting with their own designs in using the wilderness classroom.

Much criticism of wilderness education has come from the educational establishment. The Journal of Environmental Education has devoted an entire issue (Fall, 1980) to wilderness education in an attempt to clear up controversy and work toward defining the field. Many programs offered for credit have been oriented toward recreation or survival skills with only a smattering of academic content. Others have been less than rigorous in their presentation of material.

This paper is meant to provide a brief raison d'être for wilderness education while covering some specific practices that should assist instructors in teaching in the backcountry classroom.

THE DEEP VOICE

> It is not yet clear that civilization, the state,

> science, technology, are in the long run adaptive. And since these all are recent developments in the evolution of culture, we may ask to what ends evolution might be leading us.
>
> - Roy Rappaport
> in The Challenge of the Primitive

The lack of clarity that Dr. Rappaport speaks of has become increasingly evident in environmental and societal affairs for the last fifteen years. While efforts to raise the ecological consciousness of U.S. citizens have been partially successful, on the whole the proffered cures seem more symptomatic than profound.

The Norwegian philosopher Arne Naess has delineated two patterns of environmental awareness: the shallow and deep ecology movements.[2] Naess characterizes the shallow stream as dominant; in it we simply use our ecological knowledge in a technological "fight against pollution and resource depletion."[3] The deep ecology movement recognizes that we are intimately tied to the natural world and seeks to understand and develop the interconnections with the larger whole. To a deep ecologist the concepts of biological egalitarianism, diversity, symbiosis, and decentralization are normative conditions. Deep ecology entails a change in values away from an anthropocentric culture grounded in technological manipulation of the environment.

Our educational system mirrors the larger cultural pattern. Relatively few schools offer what used to be called a "liberal arts" education based on nurturing and refining a student's intellectual capacities. Instead, the word is specialization. Students attend school to obtain a degree in their chosen field so that they may procure a job upon graduation. This is a far cry from the liberal arts ethic

where "one studies math to learn how to reason logically, not to become a mathematician."[4]

According to educator Neil Postman, the main thrust of an educational system should be directed toward countering prevailing cultural attitudes and biases.[5] Education, in effect, should serve as a balancing force in society, much as a thermostat controls temperature in a house. When room temperature falls below a certain level the thermostat will activate the heating unit, causing the temperature to rise. Similarly, if societal forces are predisposed toward specialization and the philosophies of shallow ecology, education should accent well-rounded understanding and deep ecology viewpoints. (It must be recognized that, until the deep ecology perspective becomes dominant, Postman's metaphor serves only as a bridge towards true homeostatic balance.)

Wilderness education can provide just the "thermostatic balance" that Postman describes. The student enrolled in a UCSC course is totally immersed in a wild environment. Wilderness areas are whole ecosystems far from the urban population centers where most students live. Herein lies the primary strength of the power without: to provide, through direct contact, compelling experience in the organic beauty of the natural world in contrast with the artifice of modern industrial civilization. In effect, the student is faced with a challenging "other"; the backcountry is not, by definition, civilized, and adjustments must be made. Something as simple as weather patterns, taken for granted in town and cities, gain a new and necessary respect from students living in a wild place.

This sense of what I am calling Otherness has certain parallels within human psychology. As the poet Gary Snyder has suggested throughout much of his work,[6] there also exists a wilderness within the human mind, nooks and crannies where we seldom tread. This is the personal "wilderness", the deep voice, within each individual. Stimulated by external wildness, one can begin to question prevailing attitudes and assumptions in a profound way.

The student is presented with two principal approaches with which to explore these external and internal wild places. Taken together, the courses in natural history and environmental ethics offered in UCSC programs focus on the ecological and ethical patterns that the student experiences. Academic exploration hones the student's intellectual capacities in the spirit of rational inquiry.

The second major approach results from the student's participation in the small human community that evolves in the backcountry. Shared work in camp, strenuous walking, stimulating classes and discussions are among the myriad experiences that weave a web of close and intimate connections not only between individuals, but also between individuals and their surroundings. These ties are the unadvertised curriculum of any such program, and provide structural support for the learning that takes place. Exploring these bonds provides the student with intuitive understanding that complements the academic content of the program.

It remains the task of individual instructors to insure that the "thermostatic balance" possibilities offered by a particular wilderness education program are brought to a full flowering. Many programs

have floundered due to the laissez-faire attitudes of instructors (and students) who expect the experience of merely being in the backcountry to provide sufficient stimulus for learning. While the power inherent in the wilderness is many times an instructor's most useful ally, it is not, in an academic context, an end in itself.

Recognizing that there are many paths to educational success in any field, the rest of my paper will be taken up with exploring some of the practices that have evolved through my own work which can make wilderness education programs successful learning experiences.

TEACHING IN THE OPEN

> I want to go and live away by the pond, where I shall hear only the whispering among the reeds. It will be success if I shall have left myself behind. But my friends ask what I will do when I get there. Will it not be employment enough to watch the progress of the seasons?
>
> - Henry David Thoreau
> Journals

Jonathan Fairbanks has characterized the wilderness as the "elastic classroom" in the sense that traditional spatial and temporal limits are absent.[7] Desks and the ringing bell are replaced by deserts or mountains and the beating pulse of the natural world. Fairbanks implies that the imagination is thereby released into the environment; the potential for learning increases. Yet beyond the sheer experience of wildness, how might an instructor capture and focus a student's mind into a deeper comprehension, a more meaningful contact?

The concept that may serve as an instructor's guiding principle

stems directly from the wilderness experience itself. Exploring a different external environment directly leads to questioning internal values. My most successful programs have fully integrated the study of ecology and management problems with inquiry into the values that underpin man's relationship with the natural world. A close study of ecological succession leads to critical examination of the biases against climax, steady-state communities that characterize current management practices. Another example: how and why has the role of wildlands changed throughout the development of the U.S.? Do we view wilderness as the "place of untamed beasts" as etymology might suggest,[8] or do we see it merely as a recreational escape from the pressures of our normal lives? How is it properly to be seen?

While posing such questions allows an instructor to integrate program content, program structure must be integrated too. There are two ways in which an instructor may accomplish this. The first results from an imaginative understanding of how classes might complement each other in building the larger whole. One day in the Utah canyonlands I taught a morning class in plant taxonomy followed by an afternoon session on southwestern Indian ethnobotany. The group moved from identification of flowering plants to an appreciation of the role those same plants played in the indigenous cultures of the area. That night around a small campfire we read Great Basin Coyote stories. Once again, in the stories, familiar plants were encountered only this time shot through with the mythos of prehistory. There was no need to explicitly tie the days' studies together; off in the piñyon scrub, beyond the light of the fire, two coyotes began

singing to the rising moon.

The second way to further structural integration is simple to grasp. It begins with the realization that the "elastic classroom" allows one to tailor presentations to specific areas. There is no better place to discuss riparian ecology than a streamside ecosystem. Elk bones bleaching on a Northern Rockies sagebrush flat, surrounded by the tracks of three coyotes offer powerful experience in predator-prey relationships.

In the above ways an instructor can marry structure with content, place with purpose. Yet academic content must also be viewed with an eye towards the logistical aspects of the program. After one has chosen an area to explore and material to be covered, the question becomes how best to go about it. There are numerous approaches. I prefer to begin with a hike of at least ten days so that the break between the city and the backcountry is immediate and clear. There is no expectation of an imminent return to familiarity and the group can begin to establish itself.

In pacing a hike many instructors opt for a series of base camps connected by a few days of walking. A choice area may then be thoroughly and leisurely explored. Without a daily hiking routine more time is open for presentations and projects. However, group impact on the base camp area must be taken into careful consideration.

Regardless of whether an instructor chooses to establish base camps or decides to spend more time on the trail, five or six miles a day on the average is about the maximum most groups can walk and still allow time for study and the routines of backcountry living. It is

important to remember the all-encompassing nature of studying and living together so as not to transgress the limits of the group.

Due to the unusual demands of teaching in the backcountry, the cultivation of a flexible attitude is most important. One particularly unfortunate day in the canyonlands two of my students found themselves taking unexpected dips in the Escalante River, soaking all their equipment in the process. At the same time, another student lost an expensive tent due to a loose job of packing combined with the stress of bushwhacking. In the process of drying, searching, and consoling, a presentation was foregone and our chosen camp was never reached. I have also competed with thunderstorms during lectures and can only say that the thunderstorms always win.

In summary, it is important to emphasize the crucial role of planning in any wilderness education endeavor. I prefer to structure programs to a great degree in the planning phase, filling small notebooks with lecture notes and specific sequences of classes, projects, and exercises. Planning in such a fashion leads to a specific yet wide view of the pattern of learning on a particular trip. With flexibility in mind, one can adjust to the educational demands of each hike without losing continuity over the duration of the program. (See appendix for sample itinerary.)

The "wild" learning experience is both supported and made more difficult by the wilderness experience itself. At first, most students find academic concentration to be difficult outdoors. Time is hard to budget when study, walking, exploration, and plain living all

compete for one's attention. In short, students, due to prolonged submergence in traditional educational forms, are unprepared for wilderness education programs.

Instructors can assist students with such difficulties by addressing the contrasting nature of the academic circumstances from the outset. It is very helpful to share motivations and expectations among group members early in the program. A number of short assignments within the first days of the program stimulate observation and set academic tone. For example: how does forest composition change along a certain segment of trail? What are the structural differences between two wildflowers? What birds were noticed near that old spring?

Initial assignments such as the above, aimed at developing student engagement, lead to increasingly complex exercises. Asking "what" leads to asking "how" and "why". In the desert my students quickly learned the dominant species of plants and animals. Just as quickly they wanted to know how such a depauperate flora could sustain moderate populations of mice and kangaroo rats. Such questioning led to investigating what specific plants and plant parts the rodents were eating which in turn led to consideration of their internal physiology. Specific observations led the group to an understanding of the general adaptations of small desert mammals.

Readings complement field observations. It is important to discuss not only the ideas being presented in a paper or book, but where those ideas originate. What are the values that sustain an author's argument? An excellent illustration is found by examining ecological terminology. The terms producer, consumer, energy budget, etc., all

come from economic modeling. Taken together, they point towards the predominant metaphor of modern scientific ecology: the reduction of the living green world to flow charts and benefit/cost ratios for the purposes of managerial decision making.[9]

It is especially important to present a variety of viewpoints in environmental ethics. By examining various ways of looking at the world (Judao-Christian, Eastern, Native American, humanistic, scientific, etc.), the wilderness educator offers a broad perspective. The writings of Dorothy Lee, Carl Sauer, Lynn White, Jr., David Ehrenfeld, and Daniel Kozlovsky, to name but a few, are rich sources of ideas and information.[10] I have found it valuable to consider ethical systems as they relate to the normative implications of ecologic theory. If natural systems operate along certain pathways, how might human behaviors that deviate considerably from such pathways be viewed?

In regard to format, shared readings followed by group discussions seem to offer the best approach. It is helpful to split the group into small parts to encourage discussion. Varying the composition of such groups allows for different individuals to interact. At times, short essays on a particular idea or set of readings serve to focus indistinct thoughts.

Field journals are useful substitutes for term papers in the backcountry. Given the flexibility of the format, an instructor must specify from the outset what particular function(s) the journal will serve. To avoid confusion, it is best to separate natural history elements from those of a personal/group nature. In effect the student keeps two journals.

Many students have never previously kept a field journal. It is important to assign group exercises at the beginning of a program. Rising early to watch activity around a mountain meadow, taking a bird census in an overgrown field, or observing red squirrel behavior in a spruce-fir forest are all excellent examples. Working in pairs tends to help students overcome initial difficulties. Group discussion of results leads to deep appreciation of what different individuals take note of and also provides an interesting composite result. Once students gain the rudimentary skills of observation they usually begin to practice on their own.

Along with the field journal I require a journal of personal observations. These may include insights into group dynamics, poems, short essays, and reactions to the whole experience of being in the backcountry. It is here that short writing assignments in environmental ethics are placed. Outlining an individual politics of environmental action, debating the pros and cons of wildlands management, discussing the environmental impacts of progress on one's childhood community, all these and more are possible. Again sharing among the group should be encouraged.

As critical scrutiny becomes more commonplace, one can begin to contrast the acts of reading and writing with direct experience itself. This is always interesting given the immediacy of a group's wild surroundings. What is the nature of translating sensory impressions into a system of shared symbols? What is gained and lost in the process? The student may find that the detachment necessary for conceptual thought is no greater nor less in importance than the direct exper-

ience of witnessing a desert sunrise.

Observation and inquiry combine with the "immediate" wild to forge a sense of community that is at the heart of the backcountry learning experience. Participation in an extended wilderness education program involves an evolution of community that an instructor must be aware of.

Colwell has described two major elements that are present in the definition of community.[11] The external form of Place (structural) combines with an internal sense of shared social activity (process). Different cultures tend to emphasize one aspect of community over the other. Western societies have accented social procedures over concrete physical loyalty; regionalism has been subsumed under a developing national consciousness. This is well illustrated by the current mania for national energy independence at the environmental expense of resource-rich states.

Bringing these perspectives on human community into open view facilitates the development of community within the group. Questioning students about the homes from which they come sharpens awareness of the nature of their new home in the backcountry, a world that has already provided for native peoples, early settlers or explorers, self-sustaining populations of plants and animals, as well as contributing to the energy and nutrient cycles of the biosphere. Describing these ongoing relationships and pathways, by teaching natural history, places the group in a specific ecological context. This awareness of natural systems seems to serve as a strong basis for the

social development of the group. Once one is aware of the fragility of an alpine plant community one treads lightly, if at all, on the cushion plants. In the desert, where water must sometimes be carried a half mile to camp, the group must evolve a system of transport that is equally shared by everyone.

What follows in the life of the group depends to a large extent on the leadership capabilities of the instructor. The personal involvement of living with one's students allows relationships to develop beyond the bounds of the traditional classroom. There are choices to be made on how the group will make decisions. Some situations call for a group process, while others demand that the instructor exercise authority. I usually maintain control over route and campsites since they are tied up with academic goals. However, one must not be too rigid here. For a time during each program students are responsible for setting up the route and leading the group. This builds confidence and serves as practice in map and compass skills.

It is important to have group meetings over the course of any program so that problems can be brought into the open as needed. Listening and developing a sensitivity to group mood and dynamics is the most difficult part of an instructor's job. It is relatively easy to teach outside once one gets used to mosquitos, sand, rain, and hungry bears. When conflicts arise a teacher is also a group member, albeit a special one. It is not easy to give up a portion of one's authority as instructor. Patience is very necessary; unless the problem is intractable or involves physical danger I tend to let the group solve its problems with only my comments and advice. This pro-

cedure demands more of both instructor and students but the rewards are equally great. Whatever role an instructor does play in group decisionmaking if procedures are clarified at the start the group will operate with considerably more smoothness.

The life of the backcountry community ebbs and flows as does any small society brought together from far and wide. Much can be accomplished by an instructor who works toward a sense of sharing from both an academic and personal standpoint. While difficulties always emerge due in large part to the broader cultural context, the opportunity is there to provide a unique perspective on community ecology writ large. Social behavior derives to a great extent from comprehension of the natural; the split between community structure and process can be healed. The life of the wild world and the bonds of the human group are not separable.

THE GEOGRAPHY OF HOPE

> The result of the education process is the capacity for further education.
>
> - John Dewey

At the conclusion of any wilderness education program, there comes the time of return to the paths of civilization. After such an extended period of wilderness solitude and shared community, students (and instructor) are faced with the shock of adjustment. What has happened in the past weeks of walking and learning? What does living in a wild place give us, bring to our thoughts and perceptions?

Wallace Stegner saw hope being generated by such familiarity with

wild places.[12] Hope: the future as a shining vision, in acknowledging our human-ness (as animals) and humaneness as social beings dwelling together. We must have both to be whole. After a season in the back-country, the most challenging lesson comes in returning to live one's life in the world of people and planes, cars and crowds. T.S. Eliot wrote that "... the end of all our exploring / Will be to arrive where we started / And know the place for the first time."[13] We began "wild". Wilderness gives us an experience of participation in what the land was once like before we scribed it with geometry and built our towns and cities. We can learn from that "wildness" what we somehow forgot long ago. That is our hope. Or in the words of one of my students:

> We are here, as is everything else. We are part of a tie, part of a relationship and can be nothing less. We are in a successional change through time, for good and bad, in and out of control. There isn't an otherness, we are involved.

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APPENDIX

SAMPLE ITINERARY

The following itinerary is meant to provide an outline of a typical quarter-long wilderness studies program. While many specific presentations are included, there are omissions due to material covered on the trail with the entire group or curious individuals. You cannot schedule the appearance of a desert bighorn or golden eagle.

I have broken days into three functional units: morning (M), afternoon (A), and evening (E). Few evenings are scheduled, but much talk and discussion goes on during this time. The day is reviewed and many unanswered questions are brought up.

Classes are generally taught after a few hours on the trail. Unless one is staying in a base camp it is best to walk a bit and have the class "en route". Hiking serves to get the creative juices flowing and few people enjoy breaking up camp only to sit down again to listen to an instructor.

Along with presentations I have included in parentheses field/journal assignments that work off the materials covered. Again I take advantage of what comes to mind on a particular day; I have relatively few "canned" assignments.

The free days on the itinerary are for reading, relaxation or whatever an individual wants to do. I tried once to schedule evening discussions on "free" days and found them to be as popular as if I had tried to do the same on a Saturday night in a normal academic setting.

The final hike of this particular program was mainly composed of student presentations of research projects. The students not only

gained insight by delving into a subject of their interest, but also had the experience of oral delivery before a group. It worked extremely well.

The cited material refers to texts and reprints that were used during the program. A bibliography can be found following the itinerary.

Day of Program	Time Period	Activity
1	M	Meet students in Moab, check equipment, logistics
	A	Drive to trailhead, Canyonlands National Park
	E	Introduction to program (define what ecology is to you; define where your home is and what home means to you)
2	M	Minimum impact, safety, desert living
	A	Hike, introduction to ecology[1]
3	M	Day hike from base camp, introduction to desert ecology[2]
	A	Basic flower structure, plant identification (id)[3,4] (key out two flowers)
4	M	Hike
	A	Geologic history of Colorado Plateau[5]
5	M	In base camp, free day (what are the vegetative differences between slickrock and washes?)
6	M	Day hike, geology of Canyonlands National Park

Day of Program	Time Period	Activity
6 (cont.)	A	"Value of Wilderness" discussion[6]
7	M	Hike, plant id (how are plants distributed on slickrock, what evidence of animals can you find and where)
	A	"Historical Roots of Our Ecologic Crises" discussion[7]
8	M	In base camp, energetics of ecosystems
	A	Nutrient cycling
9	M	Hike
	A	Plant communities of Canyonlands (pick one community -- describe it in detail)
10	M	In base camp, desert mammal adaptations
	A	History of Canyonlands area, resource issues to the present
11		Hike all day
12	M	"Philosophy of Tao" discussion[8]
	E	Old Ways presentation, "Poetry and the Primitive"[9]
13	M	End hike
	A	Resupply
	E	Resupply
14		Drive to Capitol Reef National Park
15		Free day

Day of Program	Time Period	Activity
16	M	Begin second hike, geology of Capitol Reef
	A	Population ecology
17	M	In base camp, map and compass work
	A	Community structure (look at pinyon-juniper age classes; what factor is affecting reproduction)
18	M	Hike to new area, plant id
	E	Turtle Island discussion[10] (split into small groups each looking at different poems)
19	M	Hike
	A	Ethnobotany
	E	Coyote stories[11, 12]
20	A	Turtle Island (pick one poem, write about it)
21		Free day (write about a particularly powerful wilderness experience you have had)
22	M	Map and compass work
	A	History of wilderness preservation
	E	"Poetry, Community, Climax" discussion[13] (how has your community changed since you were a child)
23	A	End hike
	E	Resupply
24		Resupply, drive to Bryce Canyon National Park

Day of Program	Time Period	Activity
25		Study/free time, use of Park Service library
26		Study/free time, use of Park Service library
27	M	Drive to trailhead, Escalante River
	A	Begin third hike
28	M	Hike, rock art
	A	Riparian community ecology
29	M	Succession[14]
	A	Hike
30	M	In base camp, terrace community ecology
	A	An Ecological and Evolutionary Ethic discussion[15] (critique any three of Kozlovsky's chapters)
31		Free day in base camp (choose argument for following day's debate)
32	M	In base camp, Kozlovsky #2
	A	Debate on wilderness management[16, 17]
33	M	In base camp, hillside community ecology
	A	Desert Solitaire[18] discussion (choose one of three questions for small group discussion)
34		Individual solo
35		Individual solo

Day of Program	Time Period	Activity
36	M	Discussion of solos, geology of Escalante region
	A	Avian natural history
37	M	Hike, plant id
	A	"Class Politics or Democratic Reform" discussion[19]
38	M	Hike
	A	"The non-politics of Laissez-faire", discussion[20]
39		Free day
40	M	Meet Park Service ranger, discuss management of area
	A	(write letter to Park Service to comment on draft backcountry plan)
41	M	Hike out
	A	Resupply
	E	Resupply
42		Resupply, drive to Zion National Park
43		Free/study time, use of Park Service library
44		Free/study time, use of Park Service library
45	M	Begin final hike
	A	Plant id

Day of Program	Time Period	Activity
46	M	Geology of Zion National Park
	A	Student projects
47 through 51		Student projects
52	M	Field botany exam
	A	Student projects
	E	"Shallow and Deep Ecology" discussion[21]
53		Individual evaluations
54		Hike out
55		Program ends

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